

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for isolating progenitor cells having stem-cell-like characteristics from a male or female human body, ~~inclusive of all cells with stem-cell-like characteristics,~~ wherein such cells are isolated directly or indirectly ~~derived~~ from human mammary secretions comprising, ~~be it~~ colostrum, mature milk, or dry period secretion ~~from males or females, of said human body~~ during at least one time period selected from the group consisting of ~~the following periods:~~ a non-pregnant period, a pregnant period, a lactating period, and an involuting period.
2. (Currently amended) The method according to claim 1, wherein the progenitor cells are pluripotent or multipotent cells.
3. (Currently amended) A method according to claim 1, wherein said progenitor cells are isolated from an acellular portion of the mammary secretion ~~in that noncellular parts of the mammary secretion are~~ that is separated from the a cellular parts portion.
4. (Currently amended) A method according claim 3, wherein non-pluripotent or nonmultipotent cells are removed from the cellular parts portion of the mammary secretion.
5. (Currently amended) A method according ~~to any of the preceeding claims~~ claim 1, wherein human secretory epithelial cells and leucocytes, and microorganisms ~~in particular nonhuman cells like bacterial cells~~ are removed from the mammary secretion.
6. (Currently amended) A method according ~~to any of the preceeding claims~~ claim 1, wherein progenitor cells are isolated from the mammary secretions isolated during lactating periods ~~is used for the isolation of the progenitor cells, and~~ wherein said lactating periods are selected from the group consisting of ~~the mammary secretion during particular stages of mammary secretion such as:~~ the period after beginning of individual feeding, and ~~versus end of individual feeding; lactation phase; preferably the early lactation period.~~

7. (Currently amended) A method according to any of the preceding claims claim 1, wherein magnet beads are used to ~~the isolation of~~ isolate the progenitor cells.

8. (Currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein in a first step cellular components are washed out of the mammary secretion, in a second step said cellular components are stained with antibodies to the progenitor cell markers, and in a third step the progenitor cells are separated from the other cells directly or indirectly by means of the attached antibodies.

9. (Currently amended) A method according to claim 8, wherein the antibody-stained progenitor cells are attached to beads and the progenitor cells are isolated using said beads, wherein when said beads are preferably small iron beads, said beads are isolated using a magnet, and wherein the progenitor cells are extracted by means of the beads, preferably in case of small iron beads by using a magnet, and wherein subsequently the beads or the antibodies or both as well as if need be the antibodies are removed from the progenitor cells.

10. (Currently amended) A method according to claim 9, wherein ~~removal of the beads~~ are removed using an enzyme is effected by means of enzymes selected from the group consisting of following group: DNase, Proteinase, and RNase.

11. (Currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the progenitor cells are cultured without using a fibroblast feeder layer, ~~in particular without using a mouse fibroblast feeder layer.~~

12. (Currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein in

(i) a first step the whole human mammary secretion is subjected to centrifugation leaving a fat layer on top, a protein and carbohydrate rich supernatant beneath it, and at the bottom a pellet of cells;

(ii) in a second step the fat fraction and supernatant are removed;

(iii) in a third step a volume of a buffer or cell culture media, ~~such as, but not limited to, phosphate buffered saline, tris buffer saline, TBS and/or PBS, or media, such as, but not limited to, Williams media or RPMI Media,~~ is added and the cells are resuspended in the buffer or media and centrifuged as in the first step and ~~before, preferentially repeating this step process 3 or 4~~ times, leaving a substantially pure cell pellet; and

(iv) ~~and in a fourth step~~ separating the progenitor cells are separated from the cell pellet.

13. (Currently amended) A method according to ~~any of the preceding claims~~ claim 12, wherein a cell pellet is generated from the human mammary secretion, and thereafter subsequently the following separation steps are used:

(v) the cell pellet is suspended in cell culture media; ~~preferentially in RPMI media containing foetal calf (bovine) serum,~~

(vi) this suspension is incubated for at least 15 minutes at 4°C with progenitor cell-specific or stem-cell-specific antibodies linked to magnetic beads ~~which have before been incubated with progenitor, preferentially stem cell specific antibodies, like antimouse IgG antibodies, which antibodies are attached to the magnetic beads via a small strand of DNA, wherein the incubation of the cell suspension is preferentially carried out for 15 minutes at 4°C;~~

(vii) positioning a magnet in proximity to the suspension, whereby cells that once the progenitor cells have bound to the magnetic beads a magnet is attached to the tube containing the cells/beads, thus attracting attract the progenitor cells connected with the beads to the magnet, whereas unbound cells are not attracted by the magnet and remain in the supernatant; and

(viii) removing the supernatant leaving only the progenitor cells bound to the beads via the progenitor cell antibody.

14. (Currently amended) A method according to claim 13, wherein ~~thereafter subsequently, the following steps are used:~~

(ix) progenitor cells bound to the beads via the stem cell-specific antibodies ~~antibody are removed by an appropriate~~ a cleavage means, wherein when preferentially, in case of the antibody being is attached to the beads via small strand of DNA, said cleavage a-by means is of addition of a DNase,

(x) the beads are removed by positioning ~~attaching~~ the magnet to attract ~~once more such that the beads, no longer attached to the stem cells, are attracted to it; and~~

(xi) removing the supernatant ~~now~~ containing the isolated progenitor cells.

15. (Currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the cells are separated from human mammary secretion by centrifugation, and subsequently incubated in a growth media that is permissive for growth of progenitor cells, stem cells or lactocyte growth.

16. (Currently amended) A method according to claim 15, wherein in

(i) a first step the unfractionated ~~whole~~-human mammary secretion is subjected to centrifugation leaving a fat layer on top, a protein and carbohydrate rich supernatant beneath it, and at the bottom a pellet of cells;

(ii) in a second step, the cell pellet is washed in cell culture media; ~~preferably in RPMI media only~~

(iii) in a third step the cells comprising of ~~the~~ cell pellet are plated onto a cell culture vessel ~~treated device~~ in bacteriocidal, ~~and/or~~ fungicidal or both bacteriocidal and fungicidal growth media and incubated for no less than 10 and no more than 30 days and thereafter are allowed to incubate, preferably for 10-30 days, most preferably for 14-20 days,

(iv) the cells are harvested, ~~preferably by trypsination,~~ and washed, ~~preferably using~~ buffer or growth media, and

(v) the harvested cells are plated onto a reconstituted basement membrane preparation ~~for growth preferably up to confluence.~~

17. (Currently amended) A method according to claim 16, wherein in step (v) ~~a the~~ solubilized basement membrane preparation is extracted from EHS mouse sarcoma ~~is used, as e.g. Matrigel™.~~
18. (Currently amended) ~~Progenitor cells, preferentially pluripotent~~ Pluripotent or multipotent progenitor cells, derived using a method according to ~~any of the preceding claims~~ claim 1.
19. (Currently amended) A method for creating cells or tissues in a mother or infant comprising administering to the mother or infant Use of pluripotent or multipotent progenitor cells prepared according to the method of claim 1 ~~as derived using a method according to any of the claims 1-17 for ex-vivo, in-vitro and/or in-vivo applications.~~
20. (Cancelled) ~~A use according to claim 19, to create tissues or cells for the benefit of the mother and/or of the infant and/or of other individuals.~~
21. (Currently amended) A method according to claim 19, further comprising ~~Use according to claim 17 or 20, including subsequent gene therapy treatments or intrauterine foetal treatments.~~
22. (Currently amended) A method according to claim 19, wherein the cells or tissues are administered ~~Use according to claims 19-21, for the generation of 20 cells, tissue, glands or organs for the treatment of disease.~~
23. (Cancelled) ~~Use according to any of the claims 19-23 for subsequent cloning or scientific research.~~
24. (Currently amended) A method of claim 19, wherein the cells or tissues are administered for ~~Use according to any of the claims 19-23, for one or several of the group of the following purposes: clinical, diagnostic, diagnosis, bioengineering, lactoengineering, breast tissue regeneration, breast reconstructive surgery, breast cosmetic or enhancement surgery, exocrine gland tissue regeneration and/or surgery.~~


Please enter the above amendments.

Respectfully submitted,

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By: _____


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